

# **Command and Sailor Preferences in a Two-Sided Matching Distribution Process**

**LT Virginia Butler, NC, USN  
LCDR Valerie Molina, NC, USN**

**Thesis Advisors:  
Professor Bill Gates  
CDR Bill Hatch**



# Research Questions

## Primary Research Questions:

- What are the top sailor preferences influencing the enlisted distribution process in the Aviation Support Equipment Technician (AS) community?
- What are the top command preferences influencing the enlisted distribution process in the AS community?



# Background



**CNO:** Manpower first!

**ONR:** Funding research to redesign the Enlisted Distribution Process (EDP), through NPRST

**NPS:** Two sided matching intelligent agent

**University of Memphis:** autonomous computer-based artificial intelligent agent

**Ole Miss:**

- Optimization agent
- Bonus payments to attract sailors to less attractive jobs



# Methodology

- Interviews (AS Community Manager, AS Rating Detailer, and past Detailer).
- Focus Groups of AS Sailors in their second—or greater—tour.
- Preference questionnaire (AS Sailors and Command Manpower Officers/ LCPOs)

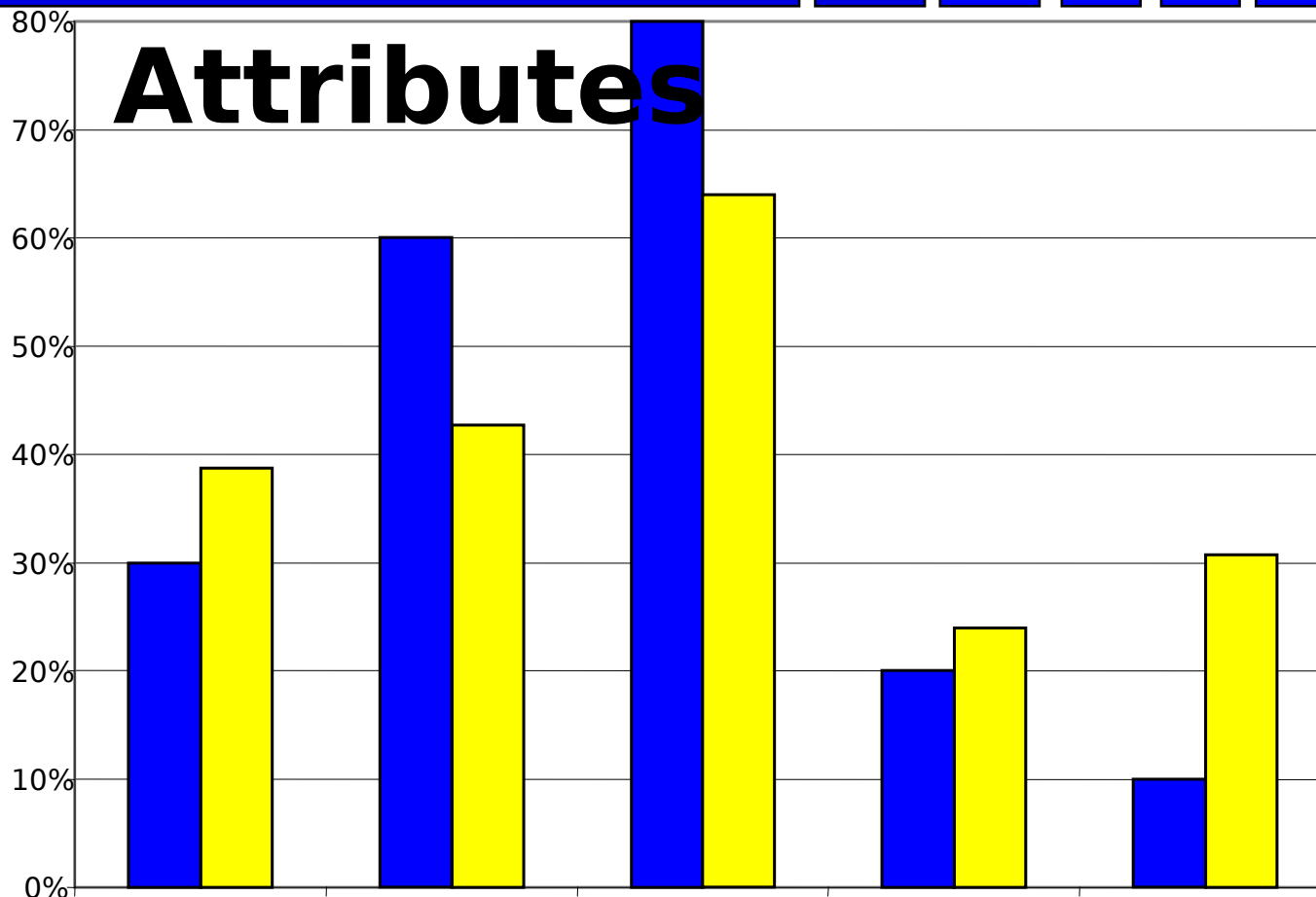


# Most Important

# Most

# Sailor

## Attributes

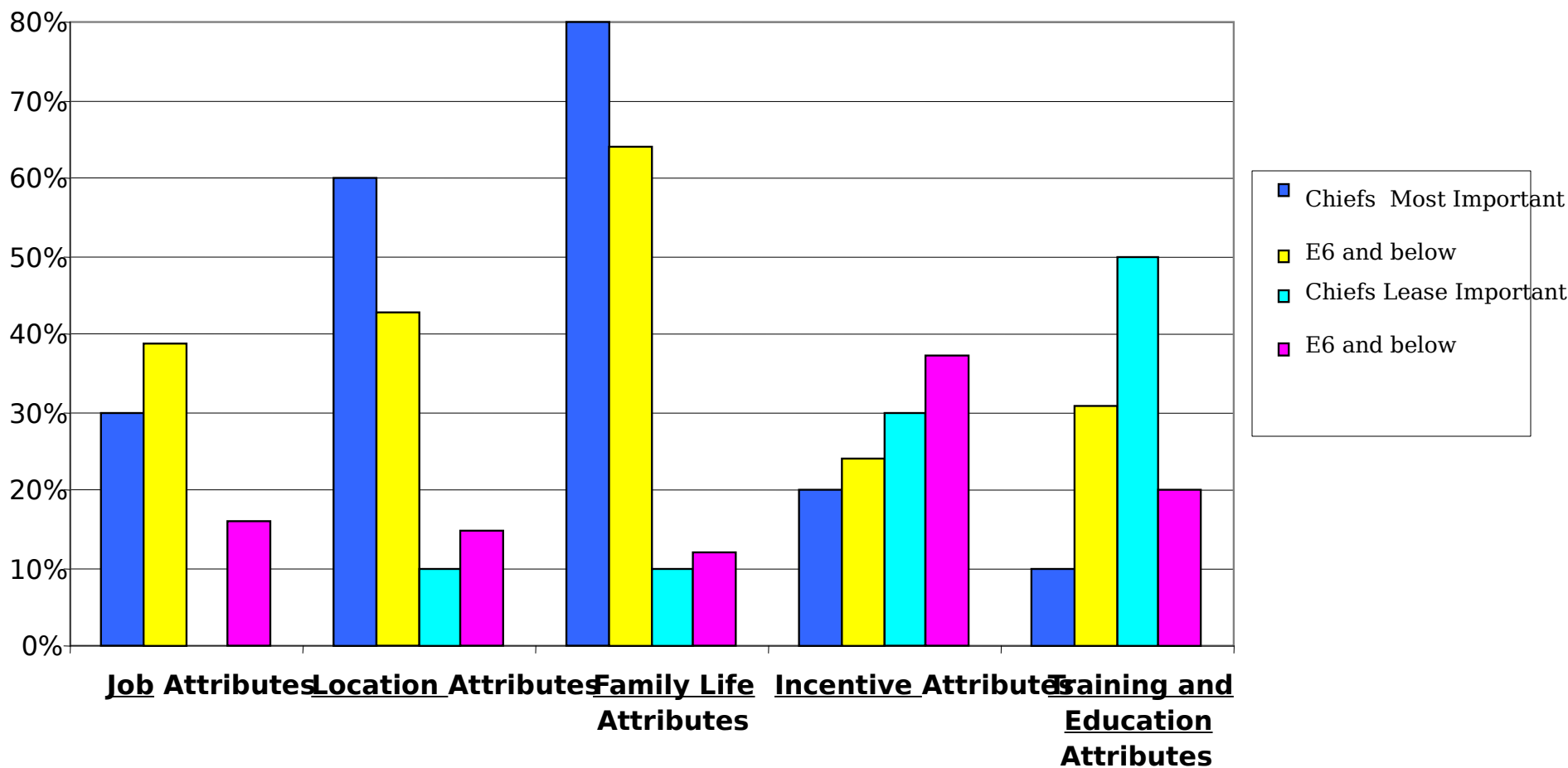


■ Chiefs Most Important  
■ E6 and below

Job Attributes Location Attributes Daily Life Attributes Inactive Attributes Training and Education Attributes



# Sailor Preferences





# Results of Sailor

## Focus Groups

- **Pros:**
  - JASS
  - Career Counselors
  - Persistence pays!
  - Support from Chain of Command



# Results of Sailor

## Focus Groups

- **Cons:**

- JASS/Career Counselor
- “Hidden Billets”
- Enlisted Duty Preference Sheet
- Communication with Detailer
- Networking/“Favoritism”





# **Command Preference Survey**

- **Questionnaires sent the last week of January**
- **Approximately 50 received (by 12Feb)**
- **Preliminary comments:**
  - “Sailor’s NEC and experience should be carefully reviewed prior to a sailor being detailed.”**
  - “No one knows what a command needs more than that command.”**
  - “MOTIVATION is what I want in sailors coming to work for me...not those who are assigned... because they haven’t picked orders in a timely manner.”**



# **Command Preference Survey**



**“Detailing...is like an employment agency. In the process the employment agency will screen and select the best qualified applicant for the job.”**

**“Critical leadership billets/Quality fills”**

**“For personnel assigned under questionable conditions, i.e., no training enroute, NEC discrepancies, or other complications, the command should be at least contacted as to options to correct the problem prior to assignment.”**



# Impact of Research

- Creates a representative data base of AS Sailor and Command preferences.
- Determines the types of information the Navy (intelligent agents) need to collect regarding jobs, locations, education, etc. to help sailors make more informed decisions.
- Determines the types of information the Navy (intelligent agents) need to collect to help commands receive a better matched sailor for the job.



# Related Theses

- Analysis of the Current Navy Enlisted Detailing Process
- An Activity Based Costing Analysis of the Navy's Enlisted Detailing Process
- Applying Two-Sided Matching Processes to the United States Navy Enlisted Assignment Process
- Simulation System: A Demonstration of The Advantages of an Electronic Employment Market in a Large Military Organization



# Related Theses



- Designing Economics Experiments to Demonstrate the Advantages of an Electronic Employment Market in a Large Military Organization
- An Organizational Analysis of the United States Air Force Personnel Center (AFPC) Airman Assignment Management System (AMS)
- Analysis of the U.S. Army Assignment Process: Improving Effectiveness and Efficiency